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ABSTRACT

This report presents results of a study of the economic impact of the Community College of Philadelphia (CCP) on the Philadelphia area. After introductory material highlights the origin of the study in a survey of the collective impact of all two- and four-year colleges and universities on the economy of the state, the paper discusses the role and methodology of economic impact studies. The following sections discuss the study methodology and the impact of CCP as an employer, as a consumer, and as an investor, borrower, and property owner. Study highlights indicate: (1) CCP employed 637 individuals (0.1% of total Philadelphia employment) and an estimated 2,931 jobs were directly or indirectly related to CCP; (2) total CCP direct expenditures for local goods and services in 1980 were $5.9 million and a total direct expenditure of $34.7 million was attributable to the college; (3) estimated total CCP-related local expenditures for goods and services was $61.8 million; (4) CCP and its employees and students together maintained an average monthly balance of $3.8 million in bank deposits in Philadelphia and the city's credit base was increased annually by about $5.4 million as a direct consequence of college-related deposits; and (5) the book value of real property owned by CCP was $16.5 million. Appendices include a summary of report conclusions from a local newspaper, and information used to calculate local multipliers. (HB)

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ED257486

THE ECONOMIC IMPACT OF COMMUNITY COLLEGE OF PHILADELPHIA ON THE PHILADELPHIA AREA

Report #18

Office of Institutional Research
Community College of Philadelphia

February, 1982

JC 850 221

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
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INTRODUCTION

Pennsylvanians have endeavored to meet the economic needs of the state's institutions of higher education both through generous support and, increasingly, through public tax support. These endeavors are sometimes handicapped by a lack of tangible and reliable information on the measurable economic returns to be expected from the dollars invested in higher education.

To meet the need for objective and reliable data, encompassing most public and privately supported higher education institutions in Pennsylvania, educational leaders, working through the Pennsylvania Association of Colleges and Universities, proposed an economic impact survey.

A primary objective of the survey was to assemble, classify, analyze and interpret the meaning of available factual data measuring current annual contributions by colleges and universities to the community, regional and state-wide economies in Pennsylvania, and to compute the immediate net economic return for public and private dollars.

Commissioned to conduct the study was the Pennsylvania Economy League, Inc., a non-profit, citizen-supported public affairs research agency. Official study sponsorship was shared by the Pennsylvania State Board of Education and the Pennsylvania Higher Education Assistance Agency. The latter agency and the Buhl Foundation shared in financing most of the study cost.

The 14-month study began August, 1980. General surveillance of the study design and conduct was the function of a nine-member Overview Committee of college presidents and education officials. Technical assistance was provided by a Technical Advisory Committee of economists and academic business administrators.

One phase of the study involved an effort to measure the collective impacts of all the accredited two and four-year degree-granting colleges and universities in Pennsylvania upon the total economy of the state. Data was assembled from both existing sources and an original questionnaire survey of the 125 institutions in Pennsylvania, of which 99 responded, representing more than 92% of the total enrollment. The results of this survey, including original collective measures of the aggregate impact of all the institutions as employers, consumers, investors, property owners and taxpayers were presented in a report titled HIGHER EDUCATION AND THE ECONOMY - THE STATE-WIDE IMPACTS. A synopsis of the State-wide study appeared in the November 18, 1981 edition of The Philadelphia Inquirer. A copy of this article is attached as Appendix A.

To supplement and corroborate the aggregate measures of state-wide impacts, colleges and universities were invited to volunteer to conduct individual studies of their community economic impacts. Community College of Philadelphia (CCP) was one of 17 institutions which responded. These 17 represented 14% of the total number of colleges and universities and approximately 30% of the total enrollment.[1] A summary of the CCP individual study is presented in the following pages.

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1. Higher Education and the Economy- A Survey of the Impacts on the Pennsylvania Economy of Its Colleges and Universities- Pennsylvania Economy League, Inc. December,1981

MEASURING ECONOMIC IMPACTS

The primary function of a college or university is teaching; participating as an operating enterprise in the economic activity of the region is incidental to teaching. Nevertheless, the institution itself is an important economic asset to the community.

Resources received by institutions from public and private sources for instructional purposes are not absorbed by the institutions. They are re-channeled into the economy in the form of salaries and wages to employees, taxes and fees to governments and payments for goods and services purchased from businesses. This cash flow process can have a dramatic local impact in terms of jobs created, increased trade, enhanced property values, and enlarged credit bases.

A given institution can have both a direct and an indirect impact on the immediate economy. The direct impact is provided when the institution provides jobs and purchases goods and services from other individuals and enterprises. There is also a direct impact when students spend money over and above their tuition in the local community. In an institution such as a community college, the money spent by students is drawn in large part from outside the area in the form of state and financial aids.

The indirect impact comes from what is called the "multiplier effect" resulting from the successive respending by other individuals and enterprises of money which the institution, staff or students originally spent.

This research report summarizes the institutional study which CCP undertook to measure the College's impact on the economy of Philadelphia.

METHODOLOGY

The information gathered by CCP's Office of Institutional Research for the conduct of this study was gathered from several sources. Census reports, The Pennsylvania Abstract, and County Business Patterns contained much of the market-area data. Institutional data came from Community College of Philadelphia Financial Statements - June 30, 1980 prepared by Price Waterhouse & Co.. Faculty, staff and student data were gathered through a survey conducted in July, 1981.

The procedures for measuring economic impacts that were utilized in this study were provided by PEL staff and are described in published works by Professors Herbert Isaacs & John Caffrey for the America Council on Education and Charles D. Salley of Georgia State University.

An outline of the information requested of the Institutional Research office by PEL for the calculation of the necessary multipliers appears as Appendix B of this report.

CCP'S ECONOMIC IMPACT

Description and measurement of the institution's total impact on the economy of the community can be approached from the standpoint of roles the College plays as an operating enterprise, namely, as an employer, as a consumer, and as an investor, property owner and borrower.

CCP as an Employer

One of the major impacts of the institution on the economy is as an employer. CCP employed 637 individuals on a full-time basis in 1980. Compared with the entire Philadelphis workforce (646,307), this represents one-tenth of one percent (0.1%) of Philadelphia employment. The average annual net payroll for full-time CCP employees totaled $8.5 million. Approximately, $550 thousand in city wage tax was collected from full-time CCP employees over the year.

Besides directly providing employment for more than 600 people, the College also indirectly provides employment for others. In its capacity as a consumer in the market area, the institution provides for additional jobs and payrolls through money spent for goods and services. It is estimated that 2931 jobs are directly and indirectly attributable to CCP.[2]

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2. This number is the sum of total employment at the institution plus the total number of jobs created as a result of institution-related expenditures. The latter total was determined by PEL to be 36 to 46 per one million dollars in expenditures.

CCP as a Consumer

The major economic impact of the college or university on the community derives from its role as a consumer of goods and services. The calculation of the economic impact of the institution as a consumer involves purchases made by faculty, staff and students of the college.

The total CCP direct expenditures for local goods and services in FY 1980 were $5.9 million. In addition to money spent by the institution, full-time employee direct local expenditures totaled $5.6 million[3] and full-time student local expenditures were $23.1 million.[4] When added, these figures produce total local direct expenditures of $34.7 million attributable to the presence of the College. These direct expenditures in turn generate additional expenditures by the recipients. This pattern of respending is the multiplier effect. These direct and indirect expenditures attributable to CCP are combined to calculate the total economic impact on the service area.

An annual multiplier of 1.78 was computed for CCP-related expenditures.[5] This figure, when multiplied by the total direct local expenditures for goods and services, yields a total expenditure figure of $61.8 million.

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3. Based on the yearly net salary of $8.5 million, this figure indicates that 65% of the full-time faculty & staff payroll is spent locally.

4. PEL guidelines did not provide for the inclusion of part-time staff and students. It is anticipated that the economic impact of CCP on the Philadelphia area would be magnified with the inclusion of the part-time element.

5. The steps employed to calculate this multiplier appear in the printed outline entitled. "Information to Calculate Local Multipliers," attached as Appendix B.

The Institution as an Investor, Borrower, and Property Owner

The presence of a college in a community can provide a substantial expansion of the potential credit base through deposits in local banks by the institution, its faculty and staff, and its students. Expansion of the credit base refers to the process whereby money that CCP and its employees place in checking and savings accounts is used by the banks for their investments, or for loans to others, thereby fostering more spending.

CCP, its employees and students maintained an average monthly balance of $3.8 million in bank deposits in Philadelphia. The Philadelphia credit base was increased annually by about $5.4 million as a direct consequence of college-related deposits.[6]

Also significant in the economy of the service area of each institution is its function as a builder or purchaser and owner of property including land, building and equipment. The book value of real property owned by CCP is approximately $16.5 million. CCP is currently building a new campus in the Philadelphia area. This makes a temporary impact on the market-area through the creation of additional employment and the purchases of building materials and services related to the construction project.

6. The credit base multiplier was supplied by PEL.

Conclusion

This study reveals a significant contribution of CCP to the local economy. Money paid to the College by the State, the City, and students has been recycled and, either by direct College expenditures or expenditures by employees and students, has, in the form of savings, provided a basis for increased bank loans and investments in the market area. It has also stimulated the local economy by increasing the volume of sales in local retail and business establishments, thereby necessitating the replenishment of stocks which, in turn, leads to further business transactions and generates increased employment.

It should be pointed out that this study focused on short-term economic impacts of CCP on the Philadelphia area. Not included among the quantifiable data in this report are the human capital returns on higher education investment. Those returns are many. Graduates are more employable, capable of greater productivity, advance more rapidly in their chosen careers, are more inclined to improve their capacities through continuing education, and are likely to have higher earnings over a working lifetime. A share of their higher incomes is returned to local, state and federal governments in the form of taxes. Their higher level of expendable income provides a stimulant to the economy. Collectively, the graduates constitute a reservoir of skilled person-power which stimulates the development of new local enterprises and encourages out-of-area corporations to move to Philadelphia.

Commerce, industry, and the professions--important components of the economy--do not exist within a vacuum. They exist within a total community structure whose governance, public and social services, and amenities reflect the involvement of an informed and concerned citizenry, an educated citizenry.

Higher education is also the instrument for bringing the minorities of our urban industrial society into the economic, political, and social mainstream, thereby facilitating the achievement of a stable and fully democratic society.

Appendices

Appendix A

The Philadelphia Inquirer
city & region

section B

Wednesday, November 18, 1981

Study: Colleges pump up Pa. economy

by Dick Pothier
Inquirer Staff Writer

Spending by Pennsylvania's colleges and universities, their staffs and students adds $4 billion annually to the state's economy, and each dollar Pennsylvanians invest in higher education returns $1.70 to the economy, according to a new statewide study of higher education.

The study, released yesterday, was conducted over 14 months in 1980 and 1981 by the Pennsylvania Economy League, a nonprofit, public-affairs research agency.

Economy League officials said they believed that the study was the first to focus on the financial impact that colleges and universities have on the economy of an entire state.

"The research indicates that higher education is, in effect, one of the state's major industries," said John W. Ingram, an Economy League official.

For example, Economy League officials said, the University of Pennsylvania and Temple University have nearly 25,000 employees between them. (Penn has about 15,000 employees, Temple about 9,500.)

The statewide study, covering the 1979-1980 academic year, combined data from 125 public and private colleges and universities across the state. The study found that higher education directly employed more than 102,000 faculty and staff members, with an additional 75,000 jobs in support services.

The payroll for the 102,000 employees, the Economy League reported, was $1.5 billion a year — the ninth-largest nongovernmental payroll in the state. And the annual payroll for all employees related to higher education was nearly $2.5 billion.

"This study is a first," said Marvin Wachman, president of Temple University, who also is an official of the Pennsylvania Higher Education Assistance Agency. "And it comes at a time when there may be some question in the minds of some about the value of higher education. This study shows that, in addition to their obvious environmental and social and educational impact, colleges and universities have a substantial and positive economic impact — an impact that isn't often appreciated."

The Economy League surveyed 125 degree-granting institutions in the state and combined that data with published economic information, officials said yesterday at a press conference in Philadelphia.

The findings include:

• For every public or private dollar that Pennsylvanians invest in their colleges or universities, including state aid, $1.70 is returned to the state economy in spending and taxes. This 70-cent "net return" adds $1.7

(See EDUCATION on 2-B)

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Higher education pays off at rate of $1.70 to $1 for state, study says

EDUCATION, from 1-B

billion a year to the state's economy.

• Pennsylvanians, both individually and governmentally, contributed $2.5 billion to higher education in the 1979-1980 academic year. But spending in Pennsylvania by higher education and related services was $4.2 billion, thus giving the state's economy a "net return on investment," including the money spent privately by college and university staffers and employees.

• Spending related to higher education, including supply and other services, creates an additional 74,876 jobs in the state. Including the regular college and university employees, 177,432 jobs are related to higher education — or one out of every 27 persons employed in Pennsylvania. (By comparison, the Economy League said, that figure ranks above total employment in the food industry, trucking, mining or chemicals and allied products.)

• Total deposits in Pennsylvania financial institutions made by colleges and schools, full-time faculty members and students, and by related businesses were more than $1.1 billion in the year covered.

"Most people think of colleges and universities solely as centers for teaching and research," Ingram said. "Their direct economic role as operating enterprises — which is considerable — is often overlooked."

In 1979, the study found, there were 197 institutions of higher learning in Pennsylvania, about 80 of them in the Philadelphia area.

In the five-county area of Philadelphia, Bucks, Chester, Montgomery and Delaware Counties, the Economy League found, the institutions and related or support businesses employed 57,000 people, or about 3.6 percent of all employment in the area.

The study was done by the Economy League for the state Board of Education and the Pennsylvania Higher Education Assistance Agency, in cooperation with the Pennsylvania Association of Colleges and Universities.

The resulting figures, said the Economy League's Robert R. Batt, "are, if anything, understated. Our reputation for objectivity is all we have going for us, and if this study showed that higher education cost us all $50 million a year, we'd say so."

The study, Economy League officials said, was so conservative that it excluded such items as an estimated $100 million a year spent by visitors to Pennsylvania campuses.

Temple's Wachman said he found it "amazing" that higher education was so seldom viewed as a major "industry" in the state.

"You hear great concern if a company with 50 employees moves out of Philadelphia or out of the state," Wachman said. "Yet there's almost no concern about the state of higher education, which borrows money, invests money, purchases millions of dollars in goods and services and pays thousands of people.

"You can imagine what would happen to the economy in the Philadelphia area if there were a major downturn in higher education, with its payroll, wage taxes, property taxes, and all the other spending higher education generates."

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Appendix B

Information to Calculate Local Multipliers

I. The Community

A. Philadelphia Community College - campuses located in center city Philadelphia, and assorted Community Service centers scattered throughout the city.

B. Service area for this study is Philadelphia Country. In some instances information may have been used from the Philadelphia Standard Metroplitan Statistical area.

C. Demographics

1. Population - 1,688,210

2. Average per capita annual income-$5,335

3. Number of people employed in Philadelphia 646,307

4. Population by race:

a. White	983,084
b. Black	638,878
c. American Indian	2,325
d. Asian	17,764
e. Hispanic	63,570
f. Other	46,159

D. Business Patterns

1. Manufacturing

a. 1,047 establishments with over 20 employees

b. 157,500 people employed in manufacturing

c. Wages and salaries paid in manufacturing: $1,966,761,000

d. Value of production - $10,244,003,000

e. Value added by manufacturing - $4,118,212,000

2. Retail trade

a. 13,408 establishments

b. $4,327,210,000 in sales

c. Payroll - $731,434,000

3. Wholesale trade

a. 2601 establishments

b. Sales: $9,511,416,000

4. Service industries

a. 11,639 establishments with payroll

b. $1,814,084,000 in sales

5. Banks and Savings and Loans

a. 467 banks and savings & loans

b. 192 personal credit institutions

c. 22 business credit institutions

d. 21 mortgage bankers and brokers

e. Total dollar value deposits, not available

II The Institution

A. Enrollment

1. Full-time - 4770

2. Part-time - 8426

3. Pennsylvania residents:

a. Full-time - 4678

b. Part-time - 8274

4. Out-of State students

a. Full-time - 95

b. Part-time - 152

B. Educational scope and objective

1. Created to insure that Philadelphians of all ages have an opportunity to develop their talents and capabilities to the fullest. CCP is committed to provide an open-door basis:

a. Affordable college education

b. Wide variety of curricula

c. Many scheduling options

d. Support services

e. Professionally credentialed faculty focused on teaching

2. Divisions:

a. Arts & Humanties

b. Economics & Business Administration

c. Social & Behavorial Sciences

d. Math, Science, & Engineering Technology

e. Allied Health Professions

III General Institution Financial Characteristics

A. Total Income - $24,377,001

1. Tuition and fees - $7,004,353

2. Government appropriations

a. State - $5,576,165

b. Local - $7,583,883

3. Government Grants and Contracts

a. Federal government - $958,690

b. State - $191,732

c. Local - $1,907

d. Private gifts, endowments, etc. - $431,725

4. Sales and services of auxiliary enterprises - $1,148,985

B. Total Expenditures - (fiscal 1980)

1. Instruction - $10,969,572

2. Public Service - $707,264

3. Academic Support - $3,192,420

(includes $788,998 library)

4. Student Services - $1,921,840

5. Institutional Support - $2,837,113

6. Plant Operation - $1,785,937

7. Scholarships and awards - $49,449

8. Auxiliary Enterprises - $1,006,335

C. Capital Assets

1. Land: book value - $12,164,449

2. Buildings: $4,306,036

3. Equipment: $6,094,587

D. Cash and Investments

1. cash - $446,493

2. other securities - $9,800,000

Outstanding Indebtedness - $0.00

IV. The College as an employer

A. Full-time employees - 637

B. 1. Yearly payroll - including part-time $14,747,493

2. Yearly payroll - full-time only - apx. $13,400,000

3. Average monthly payroll apx. $1,116,666

C. Yearly benefits paid by CCP

1. FICA - $446,003

2. Unemployment compensation - $150,132

3. Retirement plans - $830,895

D. Percentage of CCP-related jobs to Philadelphia County - .10%

F. Mutliplier - (37 jobs created for every million dollars spent)

1. total local expenditures of CCP, students, and staff times the multiplier - $34,729,543 x 1.78=61,818,586

2. jobs created by CCP expenditures - 2294

V The College as a consumer

A. Total current expenditures

1. CCP - a. non-capital goods and services - $6,093,907

b. auxiliary enterprises $1,056,335

c. other expenditures - see section III.B.3-8

2. Faculty and Staff (full-time only) - $8,588,190

3. Students - a. full-time - $27,775,417

b. part-time - $55,550,935

B. Mutliplier effects

1. Value added ratios used in these calcuations:

a. Retail trade	.277
(1) food	.122
(2) restaurants	.246
b. Services	.322
(1) building services	.643
(2) business services	.451
(3) computer services	.419
c. Total misc. business service	.349
d. Communications	
(1) telephone	.381
e. Manufacturing	.402

f. Utilities .176

(1) Water .277

(2) Electric .127

(3) Gas .124

(from "County Business Patterns", Census data, "Pennsylvania Abstract")

2. Non-capital goods and services purchased by CCP - 1980

	$ Spent in Phila.	Ratio	Value added
a. Utilities	$563,868	.176	$99,241
b. Communications	564,158	.381	214,944
c. Insurance	71,919	.322	23,158
d. Service contracts	412,614	.643	265,310
e. Rental/lease contracts	803,686	.349	280,486
f. Printing & publishing	17,770	.402	7,144
g. Travel & transporation	14,786	.322	4,732
h. Other services	278,810	.451	125,743
i. Retail purchases	787,324	.277	218,089
j. Other expenditures	2,449,942	.322	788,881

(1) Total local value added amount - $2,027,728

(2) Total local expenditures - $5,964,877

3. Local expenditures - Faculty, students

a. Students - full-time $23,151,422

b. Faculty and Staff - Phila. residents $4,883,505

- non-residents 729,739

Total $5,613.244

(1) payroll - apx. $13,400,000

(2) percent of gross payroll spent locally - 41.9%

4. Initial local income

value added amount x % payroll spent locally = $849,618

5. Total initial local spending = local expenditures by staff & students plus initial local income generated by CCP = $29,614,284

6. Ratio of initial local spending to total CCP-related spending (sec. V.A.1,2,3) - R = .688

7. Local value added to initial local spending = initial local spending x local area payroll to sales ratio (retail) = $8,203,157

8. Induced local spending = local value added amount of initial local spending x % payroll spent locally = $3,437,123.

9. Ratio of induced local spending to initial local spending = S = .116

10. Multiplier M = 1 + (r/1 - s) = 1 + (.688/.884) = 1.78

11. Total CCP-related local business volume

a. total local expenditures of faculty, staff, and full-time students = $28,764,666

b. multiplied by M= $51,201,105

C. Total college-related expenditures compared to service area

1. Total local business volume

a. Retail sales	$4,327,210,000
b. Wholesale sales	9,511,416,000
c. Service industries	1,814,084,000
d. Value added by mfg.	3,361,700,000
total -	$19,014.410,000

2. Ratio of CCP business volume to total local business volume- .004

3. Market value of real property in Phila. = $650,423,000

4. Real property committed to CCP-related business - $38,601,692

5. Ratio of CCP retail sales to Phila. - .02% (.0002)

6. Ratio of CCP services to Phila. - .08% (.0008)

VI The College as an Investor and Property Owner

A. End of year book and market value of stocks, bonds and other securities - $9,800,000

B. Bank deposits

1. CCP - (certificate of deposit) $3,400,000

2. Faculty and Staff - annualized deposit - $1,718,431

- average monthly deposit - $143,202

3. Students - annualized deposit

a. full-time $985,904 - monthly - $82,159

b. part-time $2,738,694 $228,224

C. Property investments - capital assets - CCP

1. Land - book value - $12,164,449

2. Buildings - $4,306,036

3. Equipment - $6,094,587

D. Aggregate credit base expansion (not including local business)

1. CCP-related - $3,230,000

2. Faculty & Staff - $1,666,878

3. Students - $3,612,860

4. Total - $5,370,000

E. Ratio of real property owned by CCP to total market value of real property in Phila. - .001 (or .002 including buildings)

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